

Table A-1. Metric - English Unit Conversions.

	English Units	Metric Units	To Convert	Example
Distance	Miles (mi)	Kilometers (km)	1 mi = 1.61 km 1 km = 0.62 mi	3 mi = 4.83 km 3 km = 1.86 mi
Length	Inches (in) Feet (ft)	Centimeters (cm) Meters (m)	1 in = 2.54 cm 1 cm = 0.39 in 1 ft = 0.30 m 1 m = 3.28 ft	3 in = 7.62 cm 3 cm = 1.18 in 3 ft = 0.91 m 3 m = 9.84 ft
Area	Acres (ac) Square Feet (ft ²) Square Miles (mi ²)	Hectares (ha) Square Meters (m ²) Square Kilometers (km ²)	1 ac = 0.40 ha 1 ha = 2.47 ac 1 ft ² = 0.09 m ² 1 m ² = 10.76 ft ² 1 mi ² = 2.59 km ² 1 km ² = 0.39 mi ²	3 ac = 1.20 ha 3 ha = 7.41 ac 3 ft ² = 0.28 m ² 3 m ² = 32.29 ft ² 3 mi ² = 7.77 km ² 3 km ² = 1.16 mi ²
Volume	Gallons (g) Cubic Feet (ft ³)	Liters (L) Cubic Meters (m ³)	1 g = 3.78 L 1 L = 0.26 g 1 ft ³ = 0.03 m ³ 1 m ³ = 35.32 ft ³	3 g = 11.35 L 3 L = 0.79 g 3 ft ³ = 0.09 m ³ 3 m ³ = 105.94 ft ³
Flow Rate	Cubic Feet per Second (ft ³ /sec) ¹	Cubic Meters per Second (m ³ /sec)	1 ft ³ /sec = 0.03 m ³ /sec 1 m ³ /sec = ft ³ /sec	3 ft ³ /sec = 0.09 m ³ /sec 3 m ³ /sec = 105.94 ft ³ /sec
Concentration	Parts per Million (ppm)	Milligrams per Liter (mg/L)	1 ppm = 1 mg/L ²	3 ppm = 3 mg/L
Weight	Pounds (lbs)	Kilograms (kg)	1 lb = 0.45 kg 1 kg = 2.20 lbs	3 lb = 1.36 kg 3 kg = 6.61 kg
Temperature	Fahrenheit (°F)	Celsius (°C)	°C = 0.55 (F - 32) °F = (C x 1.8) + 32	3 °F = -15.95 °C 3 °C = 37.4 °F

¹ 1 ft³/sec = 0.65 million gallons per day; 1 million gallons per day is equal to 1.55 ft³/sec.² The ratio of 1 ppm = 1 mg/L is approximate and is only accurate for water.

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Appendix B. State and Site-Specific Standards and Criteria

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Table B-1. State of Idaho Water Quality Standards as Appropriate to the Brownlee Reservoir (Weiser Flat) Subbasin Assessment and TMDL

Parameter	Idaho Water Quality Standard ¹	Idaho Admin. Code (IDAPA 58.01.02)
Bacteria	Less than 126 <i>E. coli</i> organisms/100 ml as a 30 day log mean with a minimum of 5 samples AND no sample greater than 406 <i>E. coli</i> organisms/100 ml	251.01.a & b
Dissolved Oxygen (DO)		
Cold Water Aquatic Life	Greater than 6.0 mg dissolved oxygen/L; except in hypolimnion of stratified lakes and reservoirs and the bottom 7 meters in lakes and reservoirs with greater than 35 m depth	250.02.a
Salmonid Spawning	Water column dissolved oxygen of not less than 6.0 mg/L or 90% of saturation whichever is greater.	250.02.e.2.a
	Intergravel dissolved oxygen of not less than 5 mg/L (1 day min) AND not less than 6.0 mg/L (7 day avg. mean) during spawning and incubation period for species inhabiting the waters	250.02.e.1
Seasonal Cold	Greater than 6.0 mg dissolved oxygen/L; except in hypolimnion of stratified lakes and reservoirs and the bottom 7 meters in lakes and reservoirs with greater than 35 m depth, applicable during the time period from the summer solstice to the autumnal equinox	250.03.a.i-iii
Warm Water Aquatic Life	Greater than 5.0 mg dissolved oxygen/L; except in hypolimnion of stratified lakes and reservoirs and the bottom 7 meters in lakes and reservoirs with greater than 35 m depth	250.04.a

Parameter	Idaho Water Quality Standard ¹	Idaho Admin. Code (IDAPA 58.01.02)
Mercury	<p>Surface waters of the state shall be free from toxic substances in concentrations that impair designated beneficial uses. Toxic substance criteria is set forth in CWA 40 CFR 131.36 (b)(1) (National Toxics Rule (NTR)). 0.012 ug/L water column concentration aquatic life chronic criterion</p> <p>0.14 ug/L water column concentration for ingestion of fish and drinking water</p> <p>1.0 mg/kg total mercury (NTR), less than 0.5 mg methylmercury /kg in fish tissue (wet weight) for human consumption</p>	<p>210</p> <p>210 and Nat. Toxics Rule (CWA 40 CFR 131.36 (b)(1))</p> <p>210 and Nat. Toxics Rule (CWA 40 CFR 131.36 (b)(1))</p>
Nuisance Algae	Surface waters shall be free from floating, suspended or submerged matter of any kind in concentrations causing nuisance or objectionable conditions or that impair designated beneficial uses and be free from oxygen-demanding materials in concentrations that would result in an anaerobic water condition.	200.05 & 07
Nutrients	Surface waters shall be free from excess nutrients that can cause visible slime growths or other nuisance aquatic growths impairing designated beneficial uses.	200.06
Pesticides	<p>Surface waters of the state shall be free from toxic substances in concentrations that impair designated beneficial uses. Toxic substance criteria is set forth in CWA 40 CFR 131.36 (b)(1) (National Toxics Rule).</p> <p>DDT Less than 0.00059 ug/L water column concentration for ingestion of fish and drinking water</p> <p>DDD Less than 0.00083 ug/L water column concentration for ingestion of fish and drinking water</p> <p>DDE Less than 0.00059 ug/L water column concentration for ingestion of fish and drinking water</p> <p>Dieldrin Less than 0.00014 ug/L water column concentration for ingestion of fish and drinking water</p>	<p>210 and Nat. Toxics Rule (CWA 40 CFR 131.36 (b)(1))</p> <p>210 and Nat. Toxics Rule (CWA 40 CFR 131.36 (b)(1))</p> <p>210 and Nat. Toxics Rule (CWA 40 CFR 131.36 (b)(1))</p> <p>210 and Nat. Toxics Rule (CWA 40 CFR 131.36 (b)(1))</p>
pH	6.5-9.0 standard units	250.01.a

Parameter	Idaho Water Quality Standard ¹	Idaho Admin. Code (IDAPA 58.01.02)
Temperature		
Cold Water Aquatic Life	22 °C or less AND no greater than 19 °C maximum daily average	250.02.b
Salmonid Spawning (for the appropriate periods for the specific species)	13 °C or less AND no greater than 9 °C maximum daily average	250.02.e.ii
Seasonal Cold	27 °C or less as a daily maximum with a daily average of no greater than 24 °C, applicable during the time period from the summer solstice to the autumnal equinox	250.03.b
Warm Water Aquatic Life	33 °C or less AND no greater than 29 °C maximum daily average	250.04.b
Turbidity (Sediment)	Less than 50 NTU above background for any given sample OR Less than 25 NTU for more than ten consecutive days (below any applicable mixing zone set by the DEQ) applies to waters designated for cold water aquatic life	250.02.d
Sediment	Sediment shall not exceed quantities specified in general surface water quality criteria (IDAPA 58.01.02.250 or 252), or, in the absence of specific sediment criteria, quantities that impair designated beneficial uses.	200.08
Total Dissolved Gases	Less than 110%	250.01.b

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Appendix C. Data Sources

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Table C-1. Data sources for the Brownlee Reservoir (Weiser Flat) Subbasin Assessment and TMDL.

Water Body	Data Source	Type of Data	When Collected
Dennett Creek	DEQ BURP monitoring, Boise Regional Office, Boise, Idaho	Field data	1996
	BLM monitoring, Boise Regional Office, Boise, Idaho	Field data	2001
Hog Creek	Kirk Campbell, Idaho State Department of Agriculture, Boise, Idaho	Field and laboratory monitoring data	1999,2000
	DEQ BURP monitoring, Boise Regional Office, Boise, Idaho	Field data	1995
Scott Creek	Kirk Campbell, Idaho State Department of Agriculture, Boise, Idaho	Field and laboratory monitoring data	1999,2000
	DEQ BURP monitoring, Boise Regional Office, Boise, Idaho	Field data	1995
Warm Springs Creek	Kirk Campbell, Idaho State Department of Agriculture, Boise, Idaho	Field and laboratory monitoring data	1999,2000
	DEQ BURP monitoring, Boise Regional Office, Boise, Idaho	Field data	1998
Jenkins Creek	Kirk Campbell, Idaho State Department of Agriculture, Boise, Idaho	Field and laboratory monitoring data	1999,2000
	DEQ BURP monitoring, Boise Regional Office, Boise, Idaho	Field data	1995

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Appendix D. Topographic Map of the Weiser Flat Watershed

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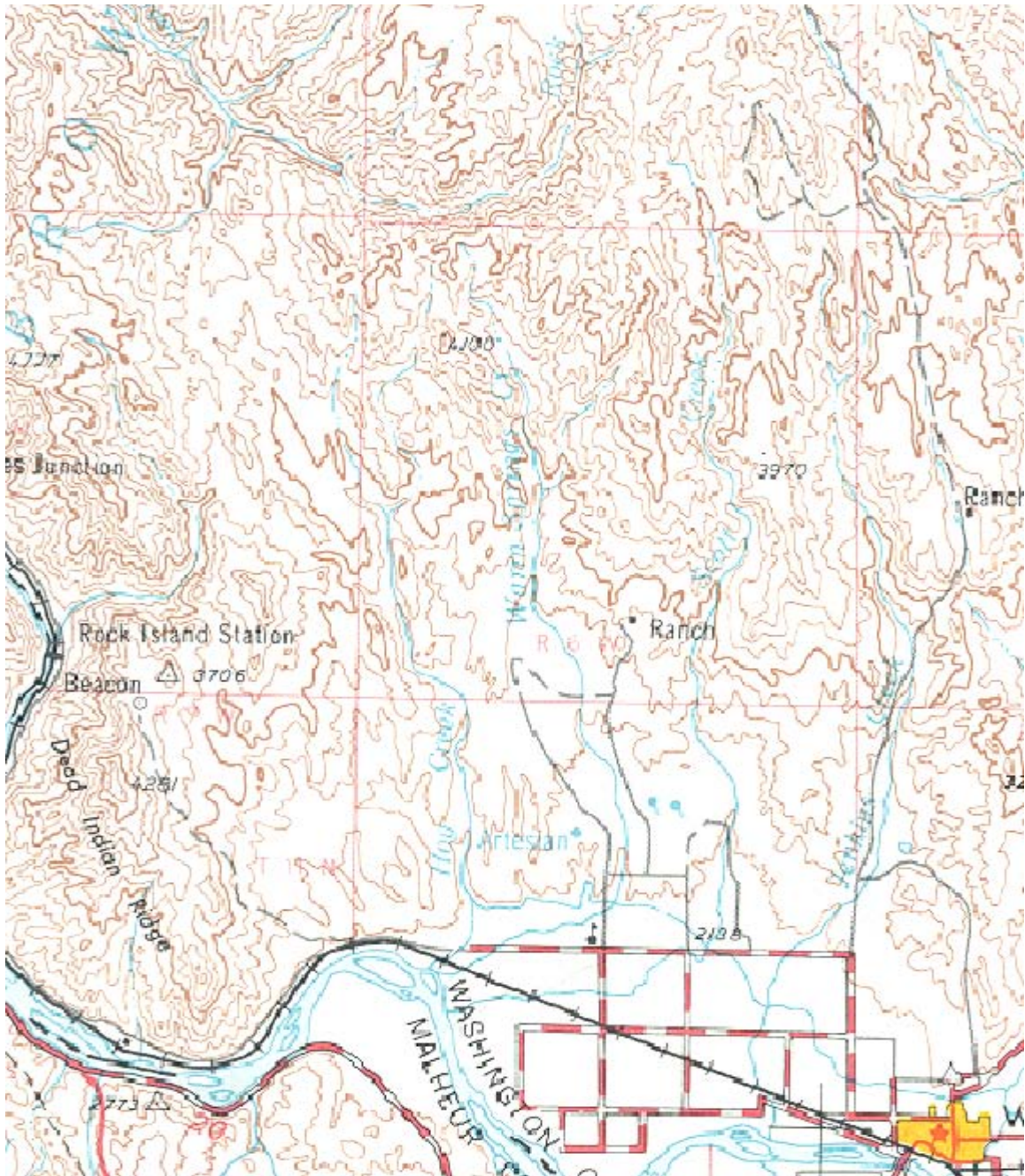


Figure D-1. Topographic map of the lower portion of the Brownlee Reservoir (Weiser Flat) Watershed, including the Hog Creek, Scott Creek, Warm Springs Creek and Jenkins Creek subwatersheds.

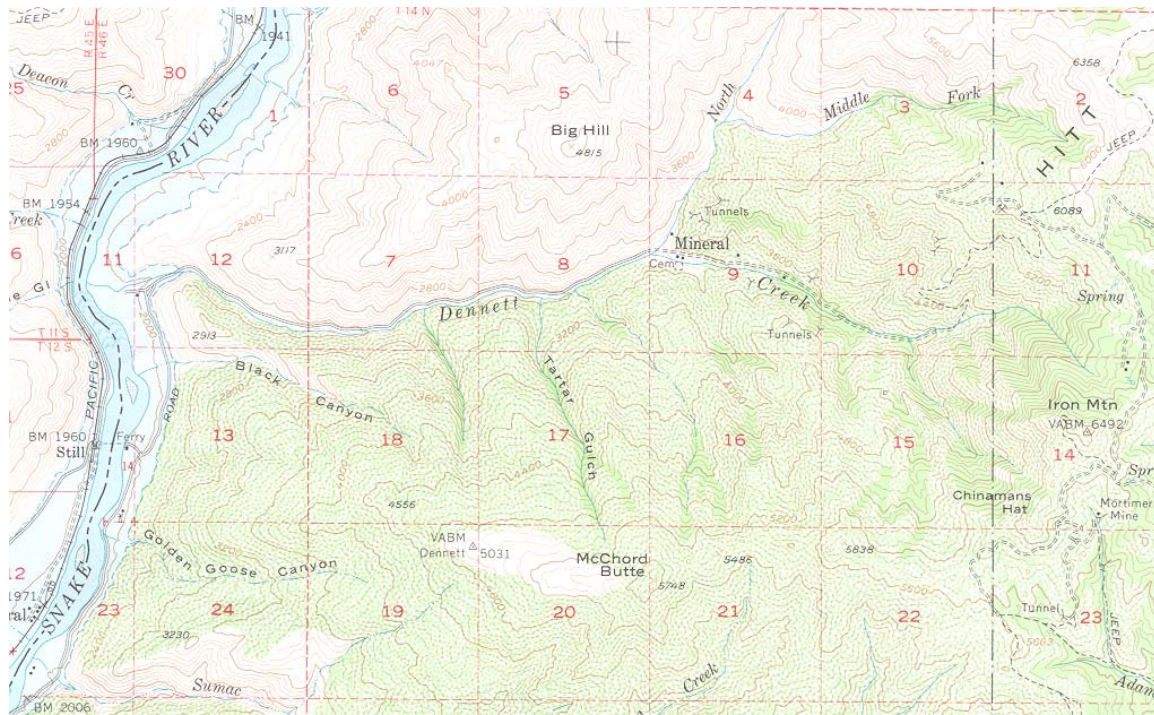


Figure D-2. Topographic map of the upper portion of the Brownlee Reservoir (Weiser Flat) Watershed, including the Dennett Creek subwatershed.